

REMARKS

Claims 1-12 remain pending in the application.

No new issues are raised, nor is further search required as a result of this amendment. It is therefore respectfully requested that the Examiner enter the amendment.

Claims 1-12 over Chen in view of Abel

In the Office Action, claims 1-12 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Chen et al., U.S. Patent No. 5,500,900 ("Chen") in view of Abel, U.S. Patent No. 5,659,619 ("Abel"). The Applicant respectfully traverses the rejection.

Claims 1-8 recite a plurality of **spatial characteristic functions** derived from **time domain head-related transfer functions** and adaptively combined with a plurality of Eigen filters. Claims 9-10 recite projecting measured **time domain head-related transfer functions** back to at least one principal Eigen vector **to create spatial characteristic sets**.

The Examiner agrees that **Chen fails to teach deriving a plurality of spatial characteristic functions from time domain HRTF.** (Office Action at 6). To cure this serious deficiency, the Examiner cites Abel as allegedly teaching a time domain HRTF model. In particular, as stated in the first full paragraph on page 8 of the Office Action, the Examiner alleges that "Abel **inherently** teaches spatial characteristic function (SCFs) derived from head-related impulse responses". (emphasis added)

Under the doctrine of necessary inherency, anticipation may be established when a single prior art reference fails to disclose the claimed invention **ipsissimis verbis**, but the natural and **invariable** practice of the reference would necessarily inherently meet all the elements of the claim. **See**, e.g., **Verdegaal Bros., Inc. v. Union Oil Col. of Cal.**, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987); **In re King**, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); **Tyler Refrigeration v. Kysor Indus. Corp.**, 777 F.2d 687, 227 USPQ 245 (Fed. Cir. 1985); **Ethyl Molded Products Co. v. Betts Package Inc.**, No. 85-111 1032 (D.C.E.D. Kent. 1988). The doctrine of inherency is available only when

the inherency can be established as a certainty; probabilities are not sufficient. In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981); In re Chandler, 254 F.2d 396, 117 USPQ 361 (CCPA 1981); Ethyl Molded Prod. Co. at 1032.

However, the use of inherency at all is entirely improper with respect to a section 103 rejection. The concept of inherency has no place in determinations of obviousness under section 103, as opposed to anticipation under section 102, because "it confuses anticipation by inherency, i.e., lack of novelty, with obviousness, which, though anticipation is the epitome of obviousness, are separate and distinct concepts." Jones v. Hardy, 727 F.2d 1524, 1529, 220 USPQ 1021, 1025 (Fed. Cir. 1984); See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775-76 (Fed. Cir. 1983)

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Thus, all claims require creation of spatial characteristic functions or sets, derived as recited. The Examiner's cited teachings of Abel (Figs. 1 and 9) disclose nothing more than the fact that "spatialized output" is output to a headset. Abel's 'spatialized output' is a term applied to an ANALOG output 16 in Figs. 1 and 9. Abel does NOT disclose, teach or suggest spatial characteristic functions or sets as claimed. Moreover, the Examiner's broad-based allegation of some sort of 'inherent' spatial characteristic function or set is improper.

The Examiner's foundation for this section 103 rejection of claims 1-12 being improperly based on an allegedly inherent feature of Abel, it is respectfully requested that the improper rejection must be withdrawn.

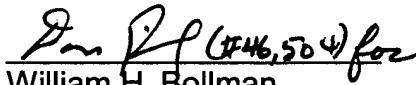
Moreover, the rejection being improper, it is respectfully requested that the finality of the Office Action be withdrawn.

Accordingly, for at least all the above reasons, claims 1-12 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,


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